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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,631	09/04/2003	Jean-Marie Gatto	CYBS5872	8128

22430 7590 08/15/2006

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EXAMINER

HOEL, MATTHEW D

ART UNIT

PAPER NUMBER

3713

DATE MAILED: 08/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/656,631	Applicant(s) GATTO ET AL.	
	Examiner Matthew D. Hoel	Art Unit 3713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>08/09/05, 10/03/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. The 112, second paragraph rejections of Claims 19 to 27 are withdrawn. Claim 19 has been amended to cite “wherein N is equal to at least two”. The examiner notes that the previous examiner was correct in pointing out that the network would have been inoperative if N were equal to zero or one, but “servers” was plural so N would inherently have been at least two, and therefore, not inoperative. The amendment is entered but was moot. The 112, second paragraph rejections of Claims 11, 12, 17, 17, 26, and 27 are withdrawn, as a search of the prior art has turned up numerous examples of “trusted transactional cache,” so one of ordinary skill in the art would have known what this means. The applicants do not, thus, have to act as their own lexicographers. The 112, second paragraph rejection of Claim 1 is withdrawn as there is now antecedent basis for “each game played.”

2. The applicants state that “An Introduction to SQL Server Clustering” (hereafter referred to as “SQL”) shows that the server clustering of Chung causes the players to see the two servers of Chung as a single server. The section of SQL relied on by the applicants teaches the Active/Passive mode of SQL clustering. The Active/Active mode of SQL clustering teaches the users seeing the SQL servers as two separate servers. The eighth paragraph of SQL Page 2: “An Active/Active SQL Server cluster means that SQL server is running on both sides of a two-way cluster. Each copy of SQL server acts independently, and users see two different SQL servers. If one of the SQL servers

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in the cluster should fail, then the failed instance of SQL server will failover to the remaining server. This means that both instances of SQL server will be running on one physical server, instead of two.” The applicants state that the communication packets of Chung are sent to the clustered servers without any regard to load balancing. SQL, relied upon by the previous examiner to illustrate server clustering, clearly teaches load balancing. Load balancing is widely known in the art to include moving processes to the remaining servers in the event one clustered server fails and goes offline. The Wikipedia article cited as relevant art states: “A load balancer can be used to increase the capacity of a server farm beyond that of a single server. It can also allow the service to continue even in the face of server down time due to server failure or server maintenance” (Page 1, 2nd Para.). SQL teaches “load balancing,” but does not explicitly cite that term. In any regard, load balancing is nowhere cited in Claim 1. As evidenced by SQL, the server clustering of Chung has the limitation “the load balancing includes having each gaming machine selecting only one of the at least two geographically dispersed central servers to which to commit the game transaction” as cited in Claims 14 and 20. Load balancing is clearly suggested by Chung, Col. 7, Lines 13 to 20: “As noted above, the system 30 illustrated in Fig. 2 is intended for a greater number of users. It is similar to the system illustrated in Fig. 1. However, this embodiment utilizes server clustering. The embodiment illustrated here has two game servers 12, although other embodiments may have additional servers 12. The game servers 12 are supported by a back end database 32.” Bringing more servers online to handle a greater user demand is an example of load balancing. In SQL, it is inherent that the

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user will send a separate transaction packet to each of the at least two central server since each SQL virtual server acts independently (Page 2). Regarding the new limitation cited in Claim 1, it is inherent that the user in Chung will send a separate packet to each of the two central servers shown in Fig. 2. Chung, Col. 10, Lines 10 to 41, describes the receipt of a packet at the server from a user. The packet is specifically sent to port 8080 on the server (Col. 10, Lines 14 to 16). The packet can be a login request (Col. 10, Lines 29 and 30). Users can log in to more than one server at a time, but any given login request will only log a user into one server. The server of Chung scans the packets for illegal requests or parameters, which would preclude a packet from being addressed to more than one server (Col. 10, Lines 18 to 23). Routers are known in the art to route packets, rather than broadcast them to multiple addresses, like a hub (see Wikipedia articles for "Router" and "Hub"). The examiner respectfully disagrees with the applicants as to the claims' condition for allowability.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

4. A person shall be entitled to a patent unless –

5. (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-5, 9, 11 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Chung et al., U.S. Patent No. 6,761,636 B2. Chung discloses an online

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gaming system with a communication network and at least two central servers. Each server is coupled to the network (See Chung Fig. 2). At least one gaming machine is coupled to the communication network. Each gaming machine is configured to carry out a game transaction for each game played and to commit each game transaction to the at least two central servers (See Chung Fig. 2; col. 1 lines 39-52; col. 7 lines 15-20) [claims 1]. The Examiner notes that the servers are clustered meaning that each server includes the information of the other servers and if one server fails, the other server can take over (See McGehee "An Introduction to SQL Server Clustering"). It is inherent that a gaming machine can be used to play at least one game. Regarding the new limitation cited in Claim 1, it is inherent that the user in Chung will send a separate packet to each of the two central servers shown in Fig. 2. Chung, Col. 10, Lines 10 to 41, describes the receipt of a packet at the server from a user. The packet is specifically sent to port 8080 on the server (Col. 10, Lines 14 to 16). The packet can be a login request (Col. 10, Lines 29 and 30). Users can log in to more than one server at a time, but any given login request will only log a user into one server. The server of Chung scans the packets for illegal requests or parameters, which would preclude a packet from being addressed to more than one server (Col. 10, Lines 18 to 23). Routers are known in the art to route packets, rather than broadcast them to multiple addresses, like a hub [claim 1]. Each of the at least two central servers returns a game transaction commit acknowledgement to the at least one gaming machine (See Chung col. 14 lines 25-67) [claims 2, 21]. The gaming machine acknowledges to a player a validity of the game transaction upon receipt of at least one game transaction commit acknowledgment

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during a timeout period following the commit of the game transaction to each of the central servers (See Chung col. 2 lines 4-30) [claims 3, 22]. Each game transaction committed to each of the at least two central servers have an identical inbound game payload comprising at least one of a gaming machine ID, a user/player ID, a transaction GUID, a gaming machine originating/return address, a game ID, a game bet, and an amount wagered (See Chung col. 9 lines 30-48) [claims 4, 23]. The at least one gaming machine is configured to be an active participant in a fault tolerance of the online gaming system (See Chung Fig. 2) [claim 5]. The at least two central servers and the at least one gaming machine are configured to support instant-draw and deferred-draw of random events (See Chung col. 13 lines 30-47) [claims 9, 16, 25]. It is inherent to the system of Chung that each of the at least two central servers comprises a trusted transactional cache. The trusted transactional cache is configured to process each committed game transaction, and to provide real time persistent storage and logging of aspects of each committed game transaction (See Chung col. 1 lines 39-67; col. 2 lines 1-67) [claims 11, 12, 17, 18, 26, 27].

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

8. A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 8, 10 and 13-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chung et al., U.S. Patent No. 6,761,636 B2. Chung discloses an online gaming system with a communication network and at least two central servers. Each server is coupled to the network (See Chung Fig. 2). At least two gaming machines are coupled to the communication network. Each gaming machine is configured to carry out a game transaction for each game played and to carry out load balancing when committing each game transaction to the at least two central servers over the communication network (See Chung Fig. 2; col. 1 lines 39-52; col. 7 lines 15-20) [claims 13, 19]. Chung teaches at least two central servers (Fig. 2) for $N=2$ [claim 19]. The load balancing includes having each gaming machine select only one of the central servers to which to commit the game transaction [claims 14, 20]. Chung lacks in disclosing using UDP protocol. At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to use UDP protocol because Applicant has not disclosed that UDP provides an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Chung's system to perform equally well with either the protocol taught by Chung or UDP because both protocols perform the same function. Therefore, it would have been prima facie obvious to modify Chung to obtain the invention as specified in the claims because such a modification would have been considered a mere design consideration which fails to patentably distinguish over the prior art of Chung [claims 8, 15, 24]. Chung lacks in specifically disclosing that the two central servers are geographically remote from one another. It would have been

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obvious to one of ordinary skill in the art at the time the invention was made to have the two central servers geographically remote from one another [claims 10, 13]. By having the servers be remote, if there is a failure of one server in one geographically area, it is likely that there is not another failure in the other geographical area and therefore the game system can still be operation. It is common sense to separate servers geographically in case something happens in one geographic location, which makes that server fail.

10. Claims 6, 7 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chung et al., in view of Lomet, U.S. Patent No. 6,182,086 B1. Chung discloses an on-line gaming system comprising a communication network (See Chung Fig. 2). Two central servers are coupled to the communications network (See Chung Fig. 2). At least one gaming machine is coupled to the communication network. The gaming machines are configured to carry out a game transaction for each game played and to commit each game transaction to each of the two central servers (See Chung Fig. 2; col. 7 lines 13-19; col. 8 lines 51-67). It is inherent to the two central servers that they included a trusted transactional cache where the trusted transactional cache is configured to process each committed game transaction (See Chung Fig. 2) [claim 62]. Chung et al. lacks in disclosing using a log for rebuilding one of the servers if there is a failure. Lomet et al. teaches of a system in which a synchronization log is constructed for rebuilding one or a plurality of at least two central servers upon failure thereof (See Lomet col. 15 lines 60-67; col. 16 lines 1-12) [claims 6, 62]. The system is configured to be rapidly synchronized by using the synchronization log upon returning to its

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operational state subsequent to failing to communicate with at least one machine (See Lomet col. 15 lines 60-67; col. 16 lines 1-12) [claims 7, 62]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to one of ordinary skill in the art at the time the invention was made to use a synchronization log in the invention of Chung so that when a failure occurs at the server, the gaming information has been stored in the log and once the server is functioning again, the game can resume from the failure point by referencing the log file. This is a common practice in the art to create and store log files in the event of a failure so as to be able to go back to the state at which the failure occurred.

Citation of Pertinent Prior Art

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Wikipedia articles "Computer Cluster," "Ethernet Hub," "Load Balancing (Computing)," "Network Switch," "Packet," and "Router," downloaded July 30th, 2006 from wikipedia.org are considered to be relevant. "An Introduction to SQL Server Clustering," copyright 2000 by Brad M. McGehee, downloaded from www.sql-server-performance.com, on June 29th, 2005 is considered to be relevant. Cordero, et al. in U.S. pre-grant publication 2001/0044339 A1, application 09/789,834, teaches server redundancy in a gaming system. Bonnell, et al. in U.S. pre-grant publication 2002/0178262 A1, application 10/152,509, teach dynamic load balancing.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

13. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Hoel whose telephone number is (571) 272-5961. The examiner can normally be reached on Mon. to Fri., 8:00 A.M. to 4:30 P.M.

15. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan M. Thai can be reached on (571) 272-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Matthew D. Hoel, Patent Examiner
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